

**REPORT TO THE TWENTY-FOURTH LEGISLATURE
STATE OF HAWAII
2008**

ON THE

**BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN
WASTEWATER TREATMENT FACILITIES**

**PURSUANT TO SECTION 340B-12, HAWAII REVISED STATUTES
REQUIRING THE DEPARTMENT OF HEALTH TO PROVIDE
AN ANNUAL REPORT OF THE ACTIVITIES OF THE
BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN
WASTEWATER TREATMENT FACILITIES**

**PREPARED BY:
STATE OF HAWAII
DEPARTMENT OF HEALTH
BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN
WASTEWATER TREATMENT FACILITIES
DECEMBER 2007**

BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER TREATMENT PLANT FACILITIES

EXECUTIVE SUMMARY

The Board of Certification of Operating Personnel in Wastewater Treatment Plants (hereafter, the Board) conducted seven (7) meetings during the fiscal year. The second day of two day scheduled meetings was held to discuss proposed changes to Hawaii Administrative Rules, Chapter 11-61.

Operator certification examinations were administered by Board members statewide in February and August to 86 operators, with 30 successfully passing the examinations, for an overall passing rate of 35 percent. This year's passing rate was higher (35 vs. 29 percent) than last year. Passing rates for each grade fluctuate over the years. The passing rates for operators taking Grade 3 and Grade 4 exams are typically lower than for operators taking Grade 1 and Grade 2 exams. The Grade 3 and Grade 4 exams require the operator to have a better understanding of the operation and maintenance of wastewater treatment plants and contain more complex problems than the Grade 1 and 2 exams.

There are presently a total of 366 certified wastewater treatment plant operators in Hawaii. 363 have permanent certifications and three (3) have conditional operator certificates.

Significant Board actions during the year include:

- Reviewing all applications for examinations;
- Conducting two wastewater operator examinations;
- Classifying wastewater treatment plants;
- Evaluating applications for issuing reciprocity certifications;
- Evaluating operator college transcripts, outside training courses, and workshops for granting continuing educational units (CEUs);
- Implementing HAR, Chapter 11-61, rules for the mandatory certification of personnel in wastewater treatment plants;
- Issuing permanent and temporary operator certificates;
- Improving the Board's website to provide information and easy access to documents and application forms; and
- Drafting proposed revisions to HAR, Chapter 11-61.

Funding Source for the Board

Act 238, SLH 1999 amended Chapter 340B, Hawaii Revised Statutes (HRS) to establish the Wastewater Treatment Certification Board (WTCB) Special Fund. The revenues for this fund are generated from monies collected for registration, certificate renewal, reciprocity, and temporary certificate fees and are used specifically for defraying the costs of the operations of the Board. In fiscal year 2006 - 2007, \$20,714.80 in revenues was collected. At the end of the fiscal year, a cash balance of \$50,865.44 existed in the fund.

2007 ANNUAL REPORT

BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER TREATMENT FACILITIES

INTRODUCTION

Effective operation and maintenance of wastewater treatment works are essential to prevent pollution of the waters of the state. Also, the efficient management of wastewater treatment works is an important economic asset to the public, to county and state officials, and to operators. Furthermore, certification of wastewater treatment works operators assures the employment of personnel competent to provide proper operation and maintenance, and efficient management of wastewater treatment works.

This Annual Report summarizes the Board's activities and accomplishments during fiscal year 2006 - 2007. It also provides information about the Board's organizational structure.

ORGANIZATIONAL STRUCTURE

The Board is administratively attached to the Department of Health. Members of the Board are appointed by the Governor and confirmed by the Legislature to four-year terms. The present Board is comprised of the following members which include representatives from each of the major islands:

Wayne Salas	- Chair, City & County of Honolulu
Marshall Lum	- Secretary, State Department of Health
Charles Dawrs	- Operator, private sector
Kenneth Knapp	- Operator, County of Maui
Eassie Miller	- HWEA Representative
Victor Moreland	- University of Hawaii engineering faculty
Myron Nomura	- Professional Engineer in private practice
Dana Riddle	- Operator, County of Hawaii
Bert Uyeno	- Operator, County of Kauai

During the year, the Board was assisted by Dayna Culbertson, administrative assistant of the Statewide Operator Training Center (SOTC) and Wade Thode, Administrator of the SOTC. Both SOTC positions are assigned to the Wastewater Branch, State Department of Health.

Wayne Salas, City and County of Honolulu operator was elected the new Board Chair for Fiscal Year 2007-2008 replacing Kenneth Knapp. Dana Riddle of the County of Hawaii received his commission to fill a vacant Hawaii Board position starting July 2007. Bert Uyeno from the County of Kauai also received his commission starting July 2007 to replace Mansfield Dacay whose term on the Board expired on June 2007.

BOARD MEETINGS DURING FISCAL YEAR 2006 – 2007

During the fiscal year, the Board held seven meetings on:

July 5, 2006	September 21-22, 2006	November 9, 2006
December 8, 2006	February 6, 2007	March 15-16, 2007
May 18, 2007		

The Board typically schedules meetings every two months. Board members discussed proposed changes to the Operator Certification Program regulations (Hawaii Administrative Rules, Chapter 11-61) on the second day of the two day scheduled meetings.

SUMMARY OF CERTIFICATION EXAMINATIONS

The Board conducted two examinations statewide for all grades of wastewater treatment plant operators during FY 2006 - 2007. The first was held in August 2006 and the second in February 2007. The results of these examinations are depicted in the following tables:

August 2006 Examination

Grade	Pass	Applicants	Passing %
1	7	10	70
2	2	5	40
3	0	12	0
4	4	20	20
Total	13	47	28

February 2007 Examination

Grade	Pass	Applicants	Passing %
1	5	7	71
2	4	8	50
3	1	7	14
4	7	17	41
Total	17	39	44

COMPARISON OF PASSING PERCENTAGES

Statewide

Date of Exam	Grade 1	Grade 2	Grade 3	Grade 4
February 2007	71	50	14	41
August 2006	70	40	0	20
February 2006	71	86	0	8
August 2005	75	0	30	0
February 2005	71	33	0	5
August 2004	40	0	44	4
February 2004	33	33	0	15
August 2003	80	45	32	16
February 2003	50	63	13	16
August 2002	73	53	17	6
February 2002	50	25	5	20
August 2001	69	20	4	8

Statistics:

A total of 86 operators took the examination in FY 2006 - 2007 of which 30 passed for an overall passing rate of 35 percent. As shown in the above table, the passing percentages for all grades have been fluctuating in recent years.

During the past six fiscal years, passing percentages for Grade 1 ranged from 33% to 80%, Grade 2 ranged from 0% to 86%, Grade 3 ranged from 0% to 44%, and Grade 4 ranged from 0% to 41%. In general, Grades 1 and 2 have higher passing rates than for Grades 3 and 4 which have harder exams.

ASSOCIATION OF BOARDS OF CERTIFICATION EXAMINATION (ABC) PASSING PERCENTAGE COMPARISON

Hawaii vs. National Average	Grade 1	Grade 2	Grade 3	Grade 4
Hawaii 2006 Average	71	67	5	15
Hawaii 2005 Average	73	25	18	3
Hawaii 2004 Average	36	20	26	10
Hawaii 2003 Average	67	53	26	16
Hawaii 2002 Average	67	41	10	14
National 2006 Average	63	47	33	38

During the 2006 year, the average passing rates for Grades 1 and 2 exceeded the national average while passing rates for Grades 3 and 4 have typically been below the national average.

Operators are encouraged to enroll in correspondence courses provided by California State University Sacramento (CSUS) and in courses offered by the Statewide Wastewater Operator Training Center. Additional training courses from other sources including online web based courses are being evaluated and approved by the Board to enhance the operator's learning progress.

The ABC Certification Examination questions reference the courses offered by CSUS. Analysis has proven that the majority of the operators who have completed the CSUS courses and taken courses offered by the training center are passing the ABC Certification examinations.

STATEWIDE WASTEWATER OPERATOR TRAINING CENTER

The State Department of Health established the training center 19 years ago in September 1988. In Fiscal Year 2006 - 2007, the training center conducted 74 training sessions statewide to 525 registrants.

Training courses included introductory basic wastewater courses to more complex advanced courses such as activated sludge, sludge conditioning and anaerobic digestion.

The Steering Committee of the Statewide Wastewater Operator Training Center has emphasized the need for improving the quality of the training program. The SOTC Administrator has been purchasing new course materials to update the courses available to operators. Additional training videotapes, DVDs, textbooks, and interactive CD-ROMs were purchased to enhance the learning opportunities afforded to operators. Desktop computers and multi-media projectors have been purchased for the neighbor island counties to modernize the learning process as instructors have incorporated Power Point presentations in the classroom.

Exam participants who have successfully completed wastewater treatment plant operator courses with the training center have traditionally shown significantly better exam results than those who did not participate in the training program.

Joint Meeting

During the fiscal year, the Board of Certification met with the Steering Committee of the Statewide Wastewater Operator Training Center to discuss issues relevant to the training and certification program. Both the Board and the Steering Committee agree that the passing percentages of the exams could improve. The counties have been encouraged to implement additional training and refresher courses for their personnel. The next joint meeting will be held in November 2007 to discuss ways to improve exam passing rates and to discuss other issues of concern.

Wastewater Branch, Department of Health

The Construction and Operations Section of the Wastewater Branch has assisted the Board in providing information and vital data of all wastewater treatment plants (WWTP) requiring classification. The Board currently maintains a computer file of approximately 180 classified WWTPs in the state.

OTHER SERVICES PROVIDED BY THE BOARD OF CERTIFICATION

Services	2007	2006	2005	2004	2003
Total number of operator certifications renewed:					
Permanent Certifications	363	363	437	420	420
Conditional Certifications	3	3	4	6	6
Requests for Temporary Certifications	8	23	2	12	9
Requests for Reciprocity Certifications	1	4	5	2	7
Evaluation of college transcripts, etc. for CEUs	9	22	37	19	12
Classification of Treatment Plants	5	7	8	9	15

A number of wastewater treatment plant operators have completed college/university courses, workshops, and short training courses. The Board evaluates these courses and awards appropriate “continuing educational unit” (CEU) credits to operators applying for exams. CEUs are required as part of the educational requirements for certification examinations as well as having appropriate wastewater treatment plant operating experience.

The January 2002 amendments to HAR Chapter 11-61 changed the renewal period for active operator certificates to every two years instead of annually. This change allowed the Board to reduce paperwork and costs associated with annual renewals and be compatible with other Association of Boards of Certification (ABC) member states. The amendments also require operators to obtain two (2) CEU credits prior to renewing their operator certificates. In recent years, this requirement resulted in a substantial increase in the number of operator requests for Board review to determine allowable CEU credits for college transcripts, workshops, and short courses attended by operators. It also reduced the number of operators renewing their licenses because many did not obtain the two CEUs needed for certification renewal. In those cases, operators must retake the certification exam to be properly licensed again. Other reasons for the decrease in operator certification renewals include: operators leaving the state, and retirement.

Significant Board Actions

The primary goal of the certification program is to ensure that all wastewater treatment plants are operated by qualified personnel. During the year, the Board achieved the following objectives:

1. Continued to review and determine the number of CEUs credited for satisfactory completion of new training courses offered by other institutions;
2. Continued to classify or reclassify wastewater treatment facilities throughout the state;
3. Resolved operator concerns on applications, qualifications for examination, and certificate renewal requirements;
4. Continued to inform operators of the Board's functions and decisions via minutes of the Board meetings and by conducting a special forum at the Hawaii Water Environment Association's (HWEA) annual conference in February. Board minutes are accessible to operators and are available on the Board's website, http://hawaii.gov/health/environmental/water/wastewater/wtc_cert.html. Meetings are open to any operator interested in attending or making a presentation before the Board. The Board intends to conduct another forum session at the upcoming 2008 HWEA conference;
5. Continued using ABC Services for the development and scoring of the bi-annual certification examinations. The ABC Services standardized examinations consist of 100 questions which are selected by Board members from a pool of 200 questions provided by ABC Services for each grade level. Scoring 70 percent or higher on the exam is required to pass the exam;

6. Evaluated a reciprocity application from an out-of-state operator moving to Hawaii;
7. Continued to provide information to operators and other agencies about Hawaii's certification program. Provided listings of operator CEUs earned, training completed, and issued new and renewal certificates;
8. Continued to review and update all forms and related instructional sheets;
9. Purchased a laptop and carrying case for Board usage at outer isle meetings.
10. Implemented amendments to Hawaii Administrative Rules (HAR), Title 11, Chapter 61, Mandatory Certification of Operating Personnel in Wastewater Treatment Facilities, dated January 20, 2002;
11. Improved the Board's website by including meeting minutes, revised application forms, annual reports to the Legislature, and an updated listing of approved courses for CEU credits.

Schedule of Meetings for Fiscal Year 2007 - 2008

The Board has scheduled ten meetings for the fiscal year.

July 12-13, 2007	September 28, 2007	November 8-9, 2007
December 14, 2007	February 19, 2008	March 13-14, 2008
May 23, 2008		

General business conducted at these meetings includes:

1. Providing an informational meeting for operators in attendance;
2. Reviewing and processing applications for certification examinations and discussing the results of the exams;
3. Reviewing and preparing responses to correspondence received from operating personnel and other agencies;
4. Reviewing, approving, or denying operator applications for Temporary Certificates;
5. Reviewing and issuing Reciprocity Certificates to qualifying operators moving to Hawaii from other states; and
6. Reviewing, approving, or denying operator certificate renewals.

Expenses During the Year (July 2006 to June 2007):

Object Code	Title	Cost
3020	ABC Examinations	\$2,970.00
3510	Membership Dues	\$900.00
3610	Freight	\$379.56
4210 & 4290	Intra-State Transportation Costs for State Employees & Others	\$3,545.42
4310 & 4390	Intra-State Travel Per Diem for State Employees & Others	\$1,841.13
4490	Out-of- State Transportation Costs	\$887.40
4590 & 4595	Out-of- State Per Diem	\$812.50
4610	Car Rental	\$298.00
7210	Conference Registration Fees	\$730.00
7190 & 7290	Other Miscellaneous Costs	\$2,760.42
	Total	\$15,124.43

In FY 2006 – 2007, the Board received approval of its request to increase its annual budget from \$12,688 to \$21,688 from the Legislature. The budget increase was necessary to fund additional costs for: the purchase of computerized equipment such as a laptop computer and software; to provide travel funds to send a representative to the annual ABC members conference; and to ensure adequate funding for neighbor island Board meetings. The meetings on the neighbor islands afford all operators the opportunity to attend or testify at Board meetings.

Funding Source for the Board

Act 238, SLH 1999 amended Chapter 340B, Hawaii Revised Statutes (HRS) which established the Wastewater Treatment Certification Board (WTCB) Special Fund. The revenues for this fund are generated from monies collected for registrations, renewals, reciprocity fees, and certificate fees that are used specifically for financing the operations of the Board. During the fiscal year, revenues from certification renewals and fees generated \$20,714.80 of additional funds. In fiscal year 06-07, revenues exceeded expenses by \$5,590.37 as additional funds were obtained through operator certification renewals during the year. Operator certifications expire and are renewable every two years. At the close of the fiscal year, a cash balance of \$50,865.44 existed in the fund.

